CITY OF NATIONAL CITY
CHECK LIST FOR GRADING AND DRAINAGE PLANS, STREET IMPROVEMENT AND RETAINING WALL PLANS

A. GRADING PLANS

TITLE SHEET:

1. All general notes and grading notes included.

2. Name(s) and address and telephone number(s) of the property owner(s).

3. Name(s) and address and telephone number(s) of the person(s) to have effective control of work.

4. Name, address and telephone number of the plan preparer, together with his/her signature and seal. (On all sheets)

5. The legal description and assessor's parcel number of the property together with site address.

6. A vicinity map with North arrow provided.

7. Dig Alert notification included.

8. Statement of responsible charge by engineer of work provided.

9. Soils Engineer statement of review of the plans and compliance with the soils report. Also soils engineer's name, address, and telephone number.

10. Soils report information (name of firm preparing, date, number).

11. The volume of proposed earthwork shown.

12. As-built note included

13. A work legend provided, with all relevant standard drawing numbers, and symbols.

14. Project title and appropriate case file number for C.U.P., P.U.D., L.S., etc.

15. All sheets containing standard City signature block, and standard D sheet information.

16. Project benchmark, as per National City datum.

WORKING DRAWINGS:

1. Scale and North arrow shown (Note: scale must be large enough to show the work sufficiently clear).

2. Project boundaries/property line dimensioned and clearly shown and labeled. Also bearings of the property lines shall be shown.

3. Notes for letters of permission for off-site grading provided (if applicable). Note: The letters must be obtained prior to grading permit, and shall be properly executed and notarized for recording.

4. All frontage streets identified and dimensioned for widths, right-of-way, etc.

5. All existing and required street improvements shown and called out, including utility lines.

6. All existing as well as proposed topo lines shown to a distance of 15' outside of the project boundaries.

7. Typical cross-sections through the site and proposed building(s) to show the proposed work clearly.

8. Existing as well as proposed ground contours shown, including slopes.

9. Existing as well as proposed ground spot elevations (including landscape areas).

10. Building(s) finish floor and pad elevations, including garage(s).

11. Street top of curb and gutter elevations shown.

12. Profiles and cross-sections of all non-building retaining walls/crib walls shown. These include the top of wall and bottom of wall elevations, lengths, and finish grade and existing grade profiles at front of wall as well as back of wall. The elevations at all changes in wall grade (stepping sections) and corresponding lengths shown.

13. The type of wall as per Regional Standard Drawings identified (Note: Plans for non-standard retaining walls, and crib walls shall be accompanied by structural calculations).

14. Adequate means of drainage, such as catch basins, ditches, etc. provided behind the proposed retaining walls.

15. Graffiti coating of the retaining walls addressed, as per City specifications.

16. Protective fencing shown on top of the retaining walls (fences must be 4 feet high minimum).

17. Where applicable: Construction of new retaining wall adjacent to an existing neighboring retaining wall at a higher elevation must address the stability of the existing adjoining improvements and the existing wall with respect to sliding, and surcharge, and must show method of shoring for excavation which will be 5 feet or more in depth at the footing.

18. Cal-OSHA permit, and shoring plan required for retaining wall excavation, or sewer trench excavation 5 feet or more in depth.

19. The required setbacks of retaining walls from property lines/street right-of-way observed, to insure no encroachment.

20. The total retaining wall and safety fencing height combination satisfies requirements of the **Planning Department** for front yard and side setbacks/lot lines.

21. All new slopes are 2 feet minimum back from the property line (top and bottom of slopes, as applicable).

22. All new slopes 2 to 1 or flatter, unless supported by properly designed retaining walls, or addressed in the soils report for stability.

23. Adequate measures for slope protection and erosion control, such as ground cover, ice plant, other landscaping, etc. are shown and called out. Slopes are planted and ground cover growing, prior to building occupancy.

24. Discharge of new run-off, or diversion of existing run-off onto the slopes prohibited, to avoid slope erosion.

25. All existing drainage courses and improvements shown with pertinent elevations.

26. All proposed drainage patches and improvements, together with elevations such as flow line, top of grate, invert, finish grade, etc. shown. Elevations shown at all changes of grade.

27. Details and specifications of all proposed catch basins/inlets included.

28. On site storm drain P.V.C. pipe shall be schedule 80 for 3” or 4” sizes, and SDR 35 for larger pipe sizes.

29. The size of catch basin openings and storm drain diameter shall be based on the drainage study (Note: Minimum approved size for catch basin is 18”X18”)

30. Clean-outs provided at intermediate points along the new on-site storm drain between catch basins, as required, and at all angle points (no bends in the pipe allowed, without clean out).

31. The new P.V.C. drainage pipe, 3 feet or less in depth, shall have concrete encasement, where running under parking lots, driveways, or other areas with vehicular traffic.

32. Storm drain on grade of 20% or more shown with concrete anchor per Regional Standard Drawing S-9.

33. The drainage pipe flowline elevations, and length (or slope) between catch basins, or between catch basin and approved street connection, i.e., sidewalk underdrain, or curb outlet shown.

34. Minimum grade for earth swales shall be 5 percent. If this is unachievable, additional catch basins must be installed along the proposed drainage path to contain flow.

35. Building roof-drain connections shown. All roof drains shall be connected to underground drainage system or to underdrains at the walkways around the building and connected to the curb. No over-spill of roof drainage upon finish grade, or paved areas permitted.

36. Finish surface elevations shown around all proposed structures at the adjacent grade, and at each side (at least two elevations must be given on each side of the structure).

37. The areas between the sides of the building, and the adjacent property line, which are 5 feet in width or less, shall be paved with concrete, rather than graded for earth swale, to improve flow away from the building perimeter. Earthen swales at these narrow areas will not be effective, and will not be permitted.

38. All proposed lot drainage shall be directed away from buildings, towards approved drainage facility, and directed to the street, drainage channel, or other improvement via storm drains.

39. Surface flows over driveways shall be prohibited, and shall be undergrounded.

40. Does the site plan and grading plan agree with respect to all details? No approval or permits shall be given unless this requirement is met.

41. Dimensions of all buildings, and the distances from these buildings to the property lines given.

42. New catch basins shown adjacent to the curb, and not at the traveled areas, i.e., middle of parking lot, driving lanes, etc. To contain flow, and to eliminate hazardous conditions.

43. On-site curb and gutter and concrete swale for the new parking lot shown with pertinent elevations and grades i.e. top of curb, flow line, etc.

44. On site asphalt concrete pavement structural sections shall be per soils report recommendations, but not less than the minimum City requirements (2 inches A.C. over 4 inches A.B., or 4 inches P.C.C.). The A.C. shall be C2 AR4000 hot mix.

45. All proposed driveways, together with unused driveway openings to be closed, shown and dimensioned.

46. All of the requirements of the National City Municipal Code Section 18.58.460 through 18.58.471, and Section 18.58.480 are satisfied. These include driveway slopes, parking stall grades, and exit and entrance requirements for parking facilities. Driveway profile to be shown with appropriate transitions, as called out in the Code.

47. The new driveway aprons shall be per the Regional Standard Drawing G-14, and draft drawing G-14-A to comply with the A.D.A. requirements. Where contiguous with the driveway apron, the sidewalk shall have the required transition as per G-14-A. Property dedication to accommodate the driveway construction may be required.

48. Plans show finish grade elevations at the driveway(s) including curb, property line, centerline, sidewalk, and onsite elevations at the driving lane leading to the building.

49. Curb outlets or sidewalk underdrains conveying site drainage to the street are to be installed at a 30 to 40 degree angle in the direction of the gutter flow.

50. All existing and required easements at the property called-out. The required width of the sewer easement shall be 15 feet for mains up to 18 inches. The required width of the storm drain easement shall be 10 feet for mains up to 48 inches, and 15 feet (or larger as the City may direct) for mains 48 inches or larger.

51. No encroachment of permanent structures, walls, light fixtures, poles, enclosures or signs permitted upon City reserved easements, or rights of way.

52. Bearings of retaining wall not parallel with property lines shall be shown.

53. Bearings and profiles of onsite storm drain pipes, together with finish grade elevations at the top of the pipes. NOTE: This requirement may be waived for minor construction.

54. For sites situated below street level, the drainage conveyance from the property shall be done either by the installation of pumps, or by acquisition of private easements from the adjacent properties to install private storm drains for the extension to other streets. A minimum of two (2) pumps is required and the plans must show details, specs, and manufacturer information for the pumps. If easements are to be obtained, they shall be shown on the plans, and deeds for conveyance shall be submitted prior to the approval of the plans.

55. Sewer connection for the new building(s) must be shown. This shall include length, material and slope of sewer lateral. A sewer clean-out 2 feet behind the property line

must be included. The minimum size of sewer lateral shall be 6 inches unless site conditions require otherwise. A cleanout at the building is also required. The plans shall show the invert elevation at the connection point to the main.

56. Sewer lateral alignment for connection to sewer main shall be straight. The main shall be extended, if necessary, to provide the straight lateral alignment.

57. If several buildings are to be constructed at the property, and the provisions of separate sewer laterals for each building will be feasible, the plans must show the installation of a main on the site to allow for the connections of the buildings to it. The private main shall then be connected to the City main via a sewer manhole, or other approved method. The plans shall show the profile of the private main, as well as the finish grade at the top of the main. The trench detail for the private main shall be per Regional Standard Drawing S-4. The private main must be of sufficient size to handle the proposed discharges.

58. For all retaining walls being proposed for construction along street right-of-ways, a note indicating that the developer/property owner shall be responsible for the maintenance, repair or upkeep of the walls shall be placed on the drawings. Such maintenance work shall include graffiti removal.

59. For industrial waste discharge into National City sewers:

    Chemical or industrial liquid wastes shall not be discharged into the public sewer system without obtaining an industrial waste permit and the approval of the San Diego Metropolitan Sewerage System to discharge such wastes into the public sewer. Wastes that are known to be detrimental to the public sewer system or detrimental to the functioning of the sewage treatment plant shall be treated and disposed of as found necessary and directed by the San Diego Metropolitan Sewerage System or other authority having jurisdiction. Obtain approvals from the State, or E.P.A. as required, prior to grading permit.

60. Where applicable:

    State Water Resources Control Board – NPDES Permits for Construction Activity - The State Water Resources Control Board established procedures for issuance of a National Pollutant Discharge Elimination System (NPDES) permit for discharges of all storm water runoff associated with construction activity. Permits are required for all storm water discharges associated with a construction activity where clearing, grading, and excavation results in the disturbance of one (1) or more acres. A Notice of Intent to be covered by the general permit must be filed prior to the start of construction.

61. Construction Site Erosion Control Regulations – See attached Notice (Exhibit B).

62. Building setbacks from new slopes shall follow Regional Standard Drawing DS-11 requirements.

63. Plans shall show details of slope benching (where applicable).

64. Plans shall show locations of cut-fill contact (daylight) lines.

65. Where applicable: If the site is to be surcharged prior to final grading, the plan shall show settlement monuments and a typical detail, indicating top of surcharge line, and ultimate finish grade. Other information to be provided on the surcharge plan shall be as follows:

    a. Earthwork quantity.
    b. Temporary measures for site drainage after the creation of slopes due to surcharging. These include provision of earth berms, drainage ditches, riprap, etc.
    c. Rough slope rotation of the newly created slopes.
    d. If underground utility pipes exist at the site, the provisions for protection of such facilities, impacted by surcharges.
    e. Notes containing/addressing recommendations of the soils engineer, verification of the suitability of import material prior to placement, prohibition of dumping and stockpiling at locations other than those for surcharging, haul routes for transporting surcharge material, dust control provisions, clean-up of City streets due to spillage.
    f. All general notes and grading notes.

66. If the site is located in a special flood hazard area, a separate flood hazard development permit is required. Building finish floor elevation must be certified on the FEMA's Elevation Certification form for the applicable flood zone.

67. Slopes shall have protective devices such as concrete ditch at the top to prevent drainage from going over them, and channel it away.

68. Where applicable: Show buttress fill locations, details and calculations based on a minimum factor of safety of 1.5.

69. Plans shall show profiles and details of new drainage channel, box culvert, transition structure, etc. including elevations. Structural calculations required for buried structures.

70. Concrete splash wall is required at locations where direction of flow such as in a drainage ditch change, and where a transition is to be provided between an existing ditch, and proposed ditch.

71. Show how finish grade meets adjoining property.

72. Swale or ditches on terraces require considerations as shown on attached Plat "A".

73. Drainage and terracing requirements shall follow U.B.C. Appendix 33 Provisions.

74. Agreements and Bonds for 100% of the Engineer's estimate are required. (See attachment)

75. Please read Ordinance and Storm Water Best Management Practices Manual and submit erosion control plans. (See attachment)

76. Letter from Sweetwater Authority for fire flow is required.

77. Certificate from San Diego County Tax Collector stating that all taxes due have been paid.

78. A Private Storm Water Treatment Maintenance Agreement must be signed by owner.

79. **TO PREVENT FUTURE DELAYS RETURN THIS LIST AND PLAN CORRECTIONS.**

City Of National City
Public Works Department/Engineering
1243 National City Blvd. National City, CA 91950-4397
(619) 336-4380

REMINDER NOTICE TO LANDOWNERS/DEVELOPERS/ CONTRACTORS

CONSTRUCTION SITE EROSION

THE PUPOSE OF THIS NOTICE IS TO ADDRESS EXISTING AND POTENTIAL EROSION PROBLEMS AT CONSTRUCTION SITES IN NATIONAL CITY, PARTICULARLY DURING THE WET SEASON (OCTOBER-APRIL), AND ENSURE THAT EACH CONSTRUCTION SITE IS FULLY PROTECTED AGAINST EROSION. THE FOLLOWING SHALL BE ADHERED TO:

1. **DISCHARGES OF POLLUTANTS, INCLUDING SEDIMENT FROM YOUR SITE ARE PROHIBITED UNDER MUNICIPAL, STATE AND FEDERAL LAWS.**

2. **IMPLEMENT ALL MEASURES NECESSARY TO PREVENT THE DISCHARGE OF SEDIMENT OR OTHER POLUTANTS FROM YOUR PROPERTY AT ALL TIMES, BUT SPCIALLY DURING THE RAINY SEASON, OCTOBER TO APRIL. THIS REQUIREMENT APPLIES TO ALL CONSTRUCTION SITES, REGARDLESS OF SIZE.**

3. **IF YOU HAVE NOT OBTAINED COVERAGE UNDER TH STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL CONSTRUCTION STORM WATER PERMIT FOR YOUR CONSTRUCTION SITE, PLEASE CONTACT FRANK MELBOURN OF THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD AT 467-2973 IMMEDIATELY.**

4. **DURING THE CONSTRUCTION PERIOD, THE NUISANCE MATERIALS ON THE STREETS AND IN THE GUTTER SHALL BE ENTIRELY SWEPT, VACUUMED AND DISPOSED OF INTO A PROPER SITE.**

5. **THE MATERIALS RESULTED FROM THE CONCRETE AND AC SAWCUTTING AND GRINDING SHALL BE VACUUMED AND DISPOSEF OF INTO A PROPER SITE, AS APPROVED BY THE CITY ENGINEER.**

d. Compliance inspections of your site may be conducted by municipal staff, CRWQCB inspectors, or United States Environmental Protection Agency (USEPA) inspectors.

Please contact Frank Melbourn of my staff at (619) 467-2973, if you have any questions.

Sincerely,

ARTHUR L. COE
Executive Officer

FTM/C/COPERMIT/CONSTRUC/ASSITAN.LT2